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SEQUENCE LISTING

TECH CENTER 1600/2900

#48
Crary
5/26/02

B1
<110> Wesche, Holger
Li, Shyun
Tularik Inc.

<120> IRAK-4: Compositions and Methods of Use

<130> 018781-003910US

<140> US 09/759,595

<141> 2001-01-11

<150> US 60/176,395

<151> 2000-01-13

<160> 7

<170> PatentIn Ver. 2.1

<210> 1

<211> 460

<212> PRT

<213> Homo sapiens

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Gly Leu Ile Arg Lys Leu Ser Asp Phe Ile Asp Pro Gln Glu Gly Trp
20 25 30

Lys Lys Leu Ala Val Ala Ile Lys Lys Pro Ser Gly Asp Asp Arg Tyr
35 40 45

Asn Gln Phe His Ile Arg Arg Phe Glu Ala Leu Leu Gln Thr Gly Lys
50 55 60

Ser Pro Thr Ser Glu Leu Leu Phe Asp Trp Gly Thr Thr Asn Cys Thr
65 70 75 80

Ala Gly Asp Leu Val Asp Leu Leu Ile Gln Asn Glu Phe Phe Ala Pro
85 90 95

Ala Ser Leu Leu Leu Pro Asp Ala Val Pro Lys Thr Ala Asn Thr Leu
100 105 110

Pro Ser Lys Glu Ala Ile Thr Val Gln Gln Lys Gln Met Pro Phe Cys
115 120 125

Asp Lys Asp Arg Thr Leu Met Thr Pro Val Gln Asn Leu Glu Gln Ser
130 135 140

Tyr Met Pro Pro Asp Ser Ser Ser Pro Glu Asn Lys Ser Leu Glu Val
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Ser Asp Thr Arg Phe His Ser Phe Ser Phe Tyr Glu Leu Lys Asn Val
165 170 175

Thr Asn Asn Phe Asp Glu Arg Pro Ile Ser Val Gly Gly Asn Lys Met
180 185 190

B1
Cont'd

Gly Glu Gly Gly Phe Gly Val Val Tyr Lys Gly Tyr Val Asn Asn Thr
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Thr Val Ala Val Lys Lys Leu Ala Ala Met Val Asp Ile Thr Thr Glu
210 215 220

Glu Leu Lys Gln Gln Phe Asp Gln Glu Ile Lys Val Met Ala Lys Cys
225 230 235 240

Gln His Glu Asn Leu Val Glu Leu Leu Gly Phe Ser Ser Asp Gly Asp
245 250 255

Asp Leu Cys Leu Val Tyr Val Tyr Met Pro Asn Gly Ser Leu Leu Asp
260 265 270

Arg Leu Ser Cys Leu Asp Gly Thr Pro Pro Leu Ser Trp His Met Arg
275 280 285

Cys Lys Ile Ala Gln Gly Ala Ala Asn Gly Ile Asn Phe Leu His Glu
290 295 300

Asn His His Ile His Arg Asp Ile Lys Ser Ala Asn Ile Leu Leu Asp
305 310 315 320

Glu Ala Phe Thr Ala Lys Ile Ser Asp Phe Gly Leu Ala Arg Ala Ser
325 330 335

Glu Lys Phe Ala Gln Thr Val Met Thr Ser Arg Ile Val Gly Thr Thr
340 345 350

Ala Tyr Met Ala Pro Glu Ala Leu Arg Gly Glu Ile Thr Pro Lys Ser
355 360 365

Asp Ile Tyr Ser Phe Gly Val Val Leu Leu Glu Ile Ile Thr Gly Leu
370 375 380

Pro Ala Val Asp Glu His Arg Glu Pro Gln Leu Leu Asp Ile Lys
385 390 395 400

Glu Glu Ile Glu Asp Glu Glu Lys Thr Ile Glu Asp Tyr Ile Asp Lys
405 410 415

Lys Met Asn Asp Ala Asp Ser Thr Ser Val Glu Ala Met Tyr Ser Val
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Ala Ser Gln Cys Leu His Glu Lys Lys Asn Lys Arg Pro Asp Ile Lys
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Lys Val Gln Gln Leu Leu Gln Glu Met Thr Ala Ser
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<210> 2
<211> 1383
<212> DNA
<213> Homo sapiens

<220>
<223> human IL-1 receptor-associated kinase 4 (IRAK-4)
cDNA

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<221> CDS
<222> (1)..(1383)
<223> human IRAK-4

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aaaccatctg gtgatgatag atacaatcat tttcacataa ggagatttga agcattactt 180
caaactggaa aaagtcccac ttctgaatta ctgtttgact ggggcaccac aaattgcaca 240
gctggtgatc ttgtggatct tttgatccaa aatgaatttt ttgctcctgc gagtcctttg 300
ctcccgatgt ctgttcccaa aactgctaat acactacatt ctaaagaagc tataacagtt 360
cagcaaaaaac agatgcctt ctgtgacaaa gacaggacat tgatgacacc tgcagaat 420
cttgaacacaa gctatatgcc acctgactcc tcaagtccag aaaataaaaag tttagaagtt 480
agtgatacac gtttcacag ttttcattt tatgaatttga agaatgtcac aaataacttt 540
gatgaacgac ccatttctgt tgggtgtaat aaaatgggag agggaggatt tggagttgt 600
tataaaggct acgtaaataa cacaactgtg gcagtgaaga agcttgcagc aatggttgac 660
attactactg aagaactgaa acagcagttt gatcaagaaa taaaagtaat gccaagggt 720
caacatgaaa acttagtata actacttggt ttctcaagtg atggagatga cctctgctt 780
gtatatgttt acatgcctaa tggttcattt ctagacagac tctcttgctt ggatggtaact 840
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<213> Mus sp.

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20 25 30

Lys Lys Leu Ala Val Ala Ile Lys Lys Pro Ser Gly Asp Asp Arg Tyr
35 40 45

Asn Gln Phe His Ile Arg Arg Phe Glu Ala Leu Leu Gln Thr Gly Lys
50 55 60

Ser Pro Thr Cys Glu Leu Leu Phe Asp Trp Gly Thr Thr Asn Cys Thr
65 70 75 80

Val Gly Asp Leu Val Asp Leu Leu Val Gln Ile Glu Leu Phe Ala Pro
85 90 95

Ala Thr Leu Leu Leu Pro Asp Ala Val Pro Gln Thr Val Lys Ser Leu
100 105 110

Pro Pro Arg Glu Ala Ala Thr Val Ala Gln Thr His Gly Pro Cys Gln
115 120 125

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cont'd*

Glu Lys Asp Arg Thr Ser Val Met Pro Met Pro Lys Leu Glu His Ser
130 135 140

Cys Glu Pro Pro Asp Ser Ser Ser Pro Asp Asn Arg Ser Val Glu Ser
145 150 155 160

Ser Asp Thr Arg Phe His Ser Phe His Glu Leu Lys Ser Ile
165 170 175

Thr Asn Asn Phe Asp Glu Gln Pro Ala Ser Ala Gly Gly Asn Arg Met
180 185 190

Gly Glu Gly Gly Phe Gly Val Val Tyr Lys Gly Cys Val Asn Asn Thr
195 200 205

Ile Val Ala Val Lys Lys Leu Gly Ala Met Val Glu Ile Ser Thr Glu
210 215 220

Glu Leu Lys Gln Gln Phe Asp Gln Glu Ile Lys Val Met Ala Thr Cys
225 230 235 240

Gln His Glu Asn Leu Val Glu Leu Leu Gly Phe Ser Ser Asp Ser Asp
245 250 255

Asn Leu Cys Leu Val Tyr Ala Tyr Met Pro Asn Gly Ser Leu Leu Asp
260 265 270

Arg Leu Ser Cys Leu Asp Gly Thr Pro Pro Leu Ser Trp His Thr Arg
275 280 285

Cys Lys Val Ala Gln Gly Thr Ala Asn Gly Ile Arg Phe Leu His Glu
290 295 300

Asn His His Ile His Arg Asp Ile Lys Ser Ala Asn Ile Leu Leu Asp
305 310 315 320

Lys Asp Phe Thr Ala Lys Ile Ser Asp Phe Gly Leu Ala Arg Ala Ser
325 330 335

Ala Arg Leu Ala Gln Thr Val Met Thr Ser Arg Ile Val Gly Thr Thr
340 345 350

Ala Tyr Met Ala Pro Glu Ala Leu Arg Gly Glu Ile Thr Pro Lys Ser
355 360 365

Asp Ile Tyr Ser Phe Gly Val Val Leu Leu Glu Leu Ile Thr Gly Leu
370 375 380

Ala Ala Val Asp Glu Asn Arg Glu Pro Gln Leu Leu Asp Ile Lys
385 390 395 400

Glu Glu Ile Glu Asp Glu Glu Lys Thr Ile Glu Asp Tyr Thr Asp Glu
405 410 415

Lys Met Ser Asp Ala Asp Pro Ala Ser Val Glu Ala Met Tyr Ser Ala
420 425 430

Ala Ser Gln Cys Leu His Glu Lys Lys Asn Arg Arg Pro Asp Ile Ala
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Lys Val Gln Gln Leu Leu Gln Glu Met Ser Ala
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<210> 4
<211> 1542
<212> DNA
<213> Mus sp.

<220>
<223> murine IL-1 receptor-associated kinase 4 (IRAK-4)
cDNA

<220>
<221> CDS
<222> (163)..(1542)
<223> murine IRAK-4

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gcctgtcca ggaagcgagg gacgtccgag aggaagttaga agatgaacaa gccgttgaca 180
ccatcgacat acatacgcaa ccttaatgtg gggatcctta ggaagctgtc ggattttatt 240
gatcctcaag aagggtggaa gaaatttagca gtagctatca aaaagccgtc cggcgacgac 300
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acctgtgaac tgctgtttga ctggggcacc acgaactgca cagttggcga ctttggat 420
ctactggtcc agatttagct gtttgcctcc gccactctcc tgctgcccga tgccgttccc 480
caaaccgtca aaagcctgcc tcctagagaa gcgcaacacag tggcacaac acacgggcct 540
tgtcagggaaa aggacaggac atccgtaatg cctatgccga agctagaaca cagctgcgag 600
ccacccgact cctcaagccc agacaacaga agtgttagagt ccagcgtac ac ctcggttccac 660
agcttctcg tccatgaact gaagagcatc acaaacaact tcgacgagca acccgcgtct 720
gccgggtggca accggatggg agagggggga tttggagtgg tgcataagg ctgtgtgaac 780
aacaccatcg tggcggtgaa gaagctcgaa gcatggatggaa aatcagtac tgaagaacta 840
aagcaacagt ttgatcaaga aattaaagta atgcaacgt gtcagcacga gaaacctgggt 900
gagctgctcg gcttctccag cgacagcgac aacctgtgtc tagtgtatgc ttacatgcc 960
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cacattcata gagatattaa aagtgcataat atcttacttag acaaagactt tactgccaaa 1140
atatctgact ttgggcttgc acgggcttcg gcaaggcttag cgccagacggt catgaccagc 1200
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gtggatgaaa accgtgaacc tcaactactg ctggatatta aagaagagat tgaagatgaa 1380
gagaagacga ttgaagatta cacggatgag aagatgagcg atgcggaccc tgcttcgggt 1440
gaagcaatgt actctgctgc tagccagtgt ctgcgtgaga agaaaaacag acggccagac 1500
attgcaaagg ttcaacagct gctacaagag atgtctgtt aa 1542

<210> 5
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:sense primer
for amplification of human IRAK-4

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and 12*
<210> 6
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:antisense
primer for amplification of human IRAK-4

<400> 6
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25

<210> 7
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:epitope tag

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